Amendments to the Claims:

This Listing of Claims, as below, will replace all prior versions of claims in the present application:

Listing of Claims:

What is claimed is:

1. (Currently Amended)   A system for controlling packet classification behavior of a plurality of heterogeneous network processors in a network, the network also including at least one host processor utilizing at least one packet classification application, the system comprising:

a plurality of definable rules for determining packet classification behavior in a predetermined priority sequence,

a plurality of generic application program interfaces (APIs) communicating with the at least one packet classification application and the plurality of heterogeneous network processors,

the plurality of generic APIs for communicating with the at least one packet classification application in the at least one host processor in a network processor independent manner,

the plurality of generic APIs managing the packet classification behavior of the plurality of heterogeneous network processors in a network processor specific manner;

wherein the plurality of generic APIs allow the at least one packet classification application to be network processor independent and to manage the

packet classification behavior of the plurality of heterogeneous network

processors in the network processor specific manner, and further include a define

API for allowing a rule of the plurality of definable rules to be defined.

2. (Original)   The system of claim 1 wherein the plurality of generic APIs further return

a null behavior for a portion of the plurality of heterogeneous network processors in

which a particular function of a particular API is not supported.

3. (Withdrawn).

4. (Currently Amended)   The system of claim 2 ~~3~~ wherein the define API allows a

priority, a rule number, a rule type, at least one corresponding field and at least one

corresponding patterns to be defined.

5. (Currently Amended)   The system of claim 1 ~~wherein a plurality of rules are used~~

~~in the packet classification behavior and~~ wherein the plurality of generic APIs include a

purge API to allow a portion of the plurality of rules for a network processor of the

plurality of heterogeneous network processors to be deleted.

6. (Currently Amended)   The system of claim 1 ~~wherein a plurality of rules are used~~

~~in the packet classification behavior and~~ wherein the plurality of generic APIs include a

delete API for allowing a rule of the plurality of definable rules to be deleted.

7. (Currently Amended) The system of claim 1 ~~wherein a plurality of rules are used in the packet classification behavior and~~ wherein the plurality of generic APIs include a list API for allowing a portion of the plurality of rules to be listed.

8. (Currently Amended) The system of claim 1 ~~wherein a plurality of rules are used in the packet classification behavior and~~ wherein the plurality of generic APIs include a swap API for allowing a first priority of a first rule to be swapped with a second priority of a second rule.

9. (Currently Amended) <u>A computer program embodied on a computer-readable medium</u> ~~A computer readable medium including a program~~ for controlling packet classification behavior of a plurality of heterogeneous network processors in a network, the network also including at least one host processor utilizing at least one packet classification application, the program comprising instructions for:
implementing a plurality of generic application program interfaces (APIs) communicating with the at least one packet classification application and the plurality of heterogeneous network processors, the plurality of generic APIs for communicating with the at least one packet classification application in the at least one host processor in a network processor independent manner, the plurality of generic APIs managing the packet classification behavior of the plurality of heterogeneous network processors in a network processor specific manner <u>and further including a define API for allowing a rule of the plurality of definable rules to be defined</u>;

wherein the plurality of generic APIs allow the at least one packet classification

application to be network processor independent and to manage the packet classification

behavior of the plurality of heterogeneous network processors in the network processor

specific manner <u>and wherein the program uses a plurality of definable rules for</u>

<u>determining packet classification behavior in a predetermined priority sequence</u>.

10. (Currently Amended)   The computer-readable program ~~medium~~ of claim 9

wherein the plurality of generic APIs further return a null behavior for a portion of the

plurality of heterogeneous network processors in which a particular function of a

particular API is not supported.

11. (Currently Amended)   The computer-readable program ~~medium~~ of claim 9

~~wherein a plurality of rules are used in the packet classification behavior and~~ wherein the

plurality of generic APIs include a define API for allowing a rule of the plurality of

<u>definable</u> rules to be defined.

12. (Currently Amended)   The computer-readable program ~~medium~~ of claim 11

wherein the define API allows a priority, a rule number, a rule type, at least one

corresponding field and at least one corresponding patterns to be defined.

13. (Currently Amended)   The computer-readable program ~~medium~~ of claim 9

~~wherein a plurality of rules are used in the packet classification behavior and~~ wherein the

plurality of generic APIs include a purge API to allow a portion of the plurality of rules

for a network processor of the plurality of heterogeneous network processors to be deleted.

14. (Currently Amended)   The computer-readable program ~~medium~~ of claim 9 ~~wherein a plurality of rules are used in the packet classification behavior and~~ wherein the plurality of generic APIs include a delete API for allowing a rule of the plurality of rules to be deleted.

15. (Currently Amended)   The computer-readable program ~~medium~~ of claim 9 ~~wherein a plurality of rules are used in the packet classification behavior and~~ wherein the plurality of generic APIs include a list API for allowing a portion of the plurality of rules to be listed.

16. (Currently Amended)   The computer-readable program ~~medium~~ of claim 9 ~~wherein a plurality of rules are used in the packet classification behavior and~~ wherein the plurality of generic APIs include a swap API for allowing a first priority of a first rule to be swapped with a second priority of a second rule.

17. (Currently Amended)   A method for controlling packet classification behavior of a plurality of heterogeneous network processors in a network <u>using a plurality of definable rules for determining packet classification behavior in a predetermined priority sequence</u>, the network also including at least one host processor utilizing at least one packet classification application, the method comprising:

(a)   abstracting the packet classification behavior of each of the plurality of heterogeneous network processors;

(b)   providing a plurality of generic application program interfaces (APIs) based on the abstraction, the plurality of generic APIs communicating with the at least one packet classification application and the plurality of heterogeneous network processors, the plurality of generic APIs for communicating with the at least one packet classification application in the at least one host processor in a network processor independent manner, the plurality of generic APIs managing the packet classification behavior of the plurality of heterogeneous network processors in a network processor specific manner, and further including a define API for allowing a rule of the plurality of definable rules to be defined;

wherein the plurality of generic APIs allow the at least one packet classification application to be network processor independent and to manage the packet classification behavior of the plurality of heterogeneous network processors in the network processor specific manner.

18. (Original) The method of claim 17 wherein the plurality of generic APIs further return a null behavior for a portion of the plurality of heterogeneous network processors in which a particular function of a particular API is not supported.

19. (Withdrawn).

20. (Original) The method of claim 20 wherein the define API allows a priority, a rule number, a rule type, at least one corresponding field and at least one corresponding patterns to be defined.

21. (Currently Amended) The method of claim 17 ~~wherein a plurality of rules are used in the packet classification behavior and~~ wherein the plurality of generic APIs include a purge API to allow a portion of the plurality of definable rules for a network processor of the plurality of heterogeneous network processors to be deleted.

22. (Currently Amended) The method of claim 17 ~~wherein a plurality of rules are used in the packet classification behavior and~~ wherein the plurality of generic APIs include a delete API for allowing a rule of the plurality of definable rules to be deleted.

23. (Currently Amended) The method of claim 17 ~~wherein a plurality of rules are used in the packet classification behavior and~~ wherein the plurality of generic APIs include a list API for allowing a portion of the plurality of definable rules to be listed.

24. (Currently Amended) The method of claim 17 ~~wherein a plurality of rules are used in the packet classification behavior and~~ wherein the plurality of generic APIs include a swap API for allowing a first priority of a first rule to be swapped with a second priority of a second rule.